

**Table S1.** Validation of HRM markers, SNPR-119, SNPR-120 and SNPR-121 in melon lines.

Line.	Phenotype	Genotype		
		SNPR5-119	SNPR5-120	SNPR5-121
PMR 5	R	R	R	R
SCNU1154	S	S	S	S
F1 (SCNU1154 x PMR5)	R	H	H	H
Edisto	S	S	S	S'
WMR29	S	S	S	S'
PMR 45	S	S	S	S'
MR1	R	R	R	R
PI 414723	R	R	R	R
PI 124112	R	S	R	R
NSL 74171	S	S	S	S'
NSL 86629	R	S	R	R

S; susceptible, H; Hetero, R; Resistant.

S' indicate for mutations different from resistant and susceptible mutations.

**Table S2.** Phenotypic and Genotypic of SNPR5-119, SNPR5-120 and SNPR5-121 screening results for against *P. xanthii* race 5 in melon.

Sl. No.	Lines	Phenotype	Genotype		
			SNPR5-119	SNPR5-120	SNPR5-121
P1	SCNU1154	S	S	S	S
P2	PMR 5	R	R	R	R
F1	SCNU1154 x PMR 5	R	H	H	H
F2-1	SCNU1154 x PMR 5	R	H	H	H
F2-2	SCNU1154 x PMR 5	S	S	S	S
F2-3	SCNU1154 x PMR 5	R	H	H	H
F2-4	SCNU1154 x PMR 5	S	S	S	S
F2-5	SCNU1154 x PMR 5	S	S	S	H
F2-6	SCNU1154 x PMR 5	S	S	S	H
F2-7	SCNU1154 x PMR 5	S	S	S	S
F2-8	SCNU1154 x PMR 5	S	S	S	S
F2-9	SCNU1154 x PMR 5	R	H	H	H
F2-10	SCNU1154 x PMR 5	R	H	H	H
F2-11	SCNU1154 x PMR 5	S	S	S	S
F2-12	SCNU1154 x PMR 5	R	H	H	H
F2-13	SCNU1154 x PMR 5	R	R	S	R
F2-14	SCNU1154 x PMR 5	S	S	S	S
F2-15	SCNU1154 x PMR 5	R	H	H	H
F2-16	SCNU1154 x PMR 5	R	R	S	R
F2-17	SCNU1154 x PMR 5	R	H	H	H
F2-18	SCNU1154 x PMR 5	R	H	H	H
F2-19	SCNU1154 x PMR 5	R	H	H	H
F2-20	SCNU1154 x PMR 5	R	H	H	H
F2-21	SCNU1154 x PMR 5	S	S	S	H
F2-22	SCNU1154 x PMR 5	R	H	H	H
F2-23	SCNU1154 x PMR 5	S	S	S	H
F2-24	SCNU1154 x PMR 5	R	H	H	H
F2-25	SCNU1154 x PMR 5	R	H	H	H
F2-26	SCNU1154 x PMR 5	R	H	H	H
F2-27	SCNU1154 x PMR 5	S	H	H	H
F2-28	SCNU1154 x PMR 5	S	H	H	H
F2-29	SCNU1154 x PMR 5	S	S	S	S
F2-30	SCNU1154 x PMR 5	S	S	S	S
F2-31	SCNU1154 x PMR 5	R	R	R	R
F2-32	SCNU1154 x PMR 5	R	R	R	R
F2-33	SCNU1154 x PMR 5	R	S	H	H
F2-34	SCNU1154 x PMR 5	R	S	H	H

F2-35	SCNU1154 x PMR 5	R	H	H	H
F2-36	SCNU1154 x PMR 5	R	H	H	H
F2-37	SCNU1154 x PMR 5	R	R	H	H
F2-38	SCNU1154 x PMR 5	R	R	H	H
F2-39	SCNU1154 x PMR 5	R	H	H	H
F2-40	SCNU1154 x PMR 5	R	R	R	R
F2-41	SCNU1154 x PMR 5	R	H	H	H
F2-42	SCNU1154 x PMR 5	R	R	R	R
F2-43	SCNU1154 x PMR 5	R	R	R	R
F2-44	SCNU1154 x PMR 5	R	R	R	R
F2-45	SCNU1154 x PMR 5	R	R	R	R
F2-46	SCNU1154 x PMR 5	R	R	R	R
F2-47	SCNU1154 x PMR 5	R	H	H	H
F2-48	SCNU1154 x PMR 5	R	R	R	R
F2-49	SCNU1154 x PMR 5	R	H	H	H
F2-50	SCNU1154 x PMR 5	R	R	R	R
F2-51	SCNU1154 x PMR 5	R	R	H	H
F2-52	SCNU1154 x PMR 5	R	H	H	H
F2-53	SCNU1154 x PMR 5	R	R	H	H
F2-54	SCNU1154 x PMR 5	R	H	H	H
F2-55	SCNU1154 x PMR 5	R	H	H	H
F2-56	SCNU1154 x PMR 5	R	H	H	H
F2-57	SCNU1154 x PMR 5	S	S	S	H
F2-58	SCNU1154 x PMR 5	R	H	H	H
F2-59	SCNU1154 x PMR 5	S	S	S	H
F2-60	SCNU1154 x PMR 5	R	H	H	H
F2-61	SCNU1154 x PMR 5	R	H	H	H
F2-62	SCNU1154 x PMR 5	R	H	H	H
F2-63	SCNU1154 x PMR 5	R	H	H	H
F2-64	SCNU1154 x PMR 5	R	H	H	H
F2-65	SCNU1154 x PMR 5	R	R	R	R
F2-66	SCNU1154 x PMR 5	R	R	R	R
F2-67	SCNU1154 x PMR 5	R	R	H	H
F2-68	SCNU1154 x PMR 5	R	R	R	R
F2-69	SCNU1154 x PMR 5	S	S	S	H
F2-70	SCNU1154 x PMR 5	R	R	H	H
F2-71	SCNU1154 x PMR 5	R	R	R	R
F2-72	SCNU1154 x PMR 5	S	S	S	H
F2-73	SCNU1154 x PMR 5	R	H	H	H
F2-74	SCNU1154 x PMR 5	R	H	H	H
F2-75	SCNU1154 x PMR 5	R	H	H	H
F2-76	SCNU1154 x PMR 5	R	H	H	H

F2-77	SCNU1154 x PMR 5	R	H	H	H
F2-78	SCNU1154 x PMR 5	R	H	H	H
F2-79	SCNU1154 x PMR 5	R	R	R	R
F2-80	SCNU1154 x PMR 5	R	R	R	R
F2-81	SCNU1154 x PMR 5	R	R	R	R
F2-82	SCNU1154 x PMR 5	R	R	R	R
F2-83	SCNU1154 x PMR 5	R	H	S	S
F2-84	SCNU1154 x PMR 5	S	R	R	R
F2-85	SCNU1154 x PMR 5	R	H	S	S
F2-86	SCNU1154 x PMR 5	S	R	R	R
F2-87	SCNU1154 x PMR 5	R	R	R	R
F2-88	SCNU1154 x PMR 5	R	R	R	R
F2-89	SCNU1154 x PMR 5	R	R	R	R
F2-90	SCNU1154 x PMR 5	R	R	R	R
F2-91	SCNU1154 x PMR 5	S	H	H	H
F2-92	SCNU1154 x PMR 5	R	H	H	H
F2-93	SCNU1154 x PMR 5	S	S	S	S
F2-94	SCNU1154 x PMR 5	S	H	H	H
F2-95	SCNU1154 x PMR 5	R	H	H	H
F2-96	SCNU1154 x PMR 5	S	S	S	S
F2-97	SCNU1154 x PMR 5	S	H	H	H
F2-98	SCNU1154 x PMR 5	R	H	H	H
F2-99	SCNU1154 x PMR 5	S	H	H	H
F2-100	SCNU1154 x PMR 5	R	H	H	H
F2-101	SCNU1154 x PMR 5	R	H	H	H
F2-102	SCNU1154 x PMR 5	R	H	H	H
F2-103	SCNU1154 x PMR 5	R	H	H	H
F2-104	SCNU1154 x PMR 5	R	H	H	H
F2-105	SCNU1154 x PMR 5	R	S	H	H
F2-106	SCNU1154 x PMR 5	R	S	H	H
F2-107	SCNU1154 x PMR 5	S	H	S	S
F2-108	SCNU1154 x PMR 5	S	H	S	S
F2-109	SCNU1154 x PMR 5	R	H	H	H
F2-110	SCNU1154 x PMR 5	R	H	H	H
F2-111	SCNU1154 x PMR 5	R	H	H	H
F2-112	SCNU1154 x PMR 5	R	H	H	H
F2-113	SCNU1154 x PMR 5	S	S	S	S
F2-114	SCNU1154 x PMR 5	S	S	S	S
F2-115	SCNU1154 x PMR 5	R	R	R	R
F2-116	SCNU1154 x PMR 5	R	R	R	R
F2-117	SCNU1154 x PMR 5	R	R	H	H
F2-118	SCNU1154 x PMR 5	R	R	H	H

F2-119	SCNU1154 x PMR 5	R	H	H	H
F2-120	SCNU1154 x PMR 5	R	H	H	H
F2-121	SCNU1154 x PMR 5	S	S	S	S
F2-122	SCNU1154 x PMR 5	S	S	S	S
F2-123	SCNU1154 x PMR 5	S	S	S	H
F2-124	SCNU1154 x PMR 5	R	R	R	R
F2-125	SCNU1154 x PMR 5	R	R	R	R
F2-126	SCNU1154 x PMR 5	R	H	H	H
F2-127	SCNU1154 x PMR 5	R	H	H	H
F2-128	SCNU1154 x PMR 5	R	H	H	H
F2-129	SCNU1154 x PMR 5	R	H	H	H
F2-130	SCNU1154 x PMR 5	R	H	S	S
F2-131	SCNU1154 x PMR 5	R	H	S	S
F2-132	SCNU1154 x PMR 5	R	R	R	R
F2-133	SCNU1154 x PMR 5	R	R	R	R
F2-134	SCNU1154 x PMR 5	R	H	H	H
F2-135	SCNU1154 x PMR 5	R	H	H	H
F2-136	SCNU1154 x PMR 5	R	H	H	H
F2-137	SCNU1154 x PMR 5	R	H	H	H
F2-138	SCNU1154 x PMR 5	R	R	S	S
F2-139	SCNU1154 x PMR 5	R	R	S	S
F2-140	SCNU1154 x PMR 5	R	R	S	S
F2-141	SCNU1154 x PMR 5	R	R	S	S

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S; susceptible, H; Hetero, R; Resistant.